

after having rested a little while the whole procession moved onward, as fifteen more versts lay still between them and Maiterek.

The travellers proceeded on their journey towards the Altai in the company of the governor-general, his wife, and daughter, on June 6. The weather was most unfavourable from their departure up to their arrival in the Altaian Staniza on June 11, and now they had to undergo all the hardships from which travellers have more or less to suffer. The roads they had to traverse led nearly always along the steep narrow banks of rapid mountain streams, or along the verge of a threatening abyss, or they crossed over vast accumulations of snow filling up the ravines.

On the summit of the pass, about 6,000 feet high, covered with grass as yet undeveloped, was a splendid view of the distant Saik Saur mountains behind Saissan; a pale yellow line extended from there up to the horizon like the ocean, it was the steppe. Beautiful meadows covered with yellow and purple pansies were discernible in the valleys between the plateaus, wooden Kirghisian tombs, somewhat resembling log huts, gave to the whole the appearance of an Alpine landscape. It was strange to see the mole (*spalax*) burrowing at this height, where trees—even the hardy larch tree—had disappeared. One night's rest was spent in a yurt camp near the lake Marka Kul. They approached it along the steep shores of the river Kuldshir, the sole outlet of the lake, and one of the tributaries of the black Irtysh. The view here was delightful, the lake of an azure colour, surrounded on all sides by mountains rising 1,500 feet above its surface, covered with snow, and partly wooded. The banks of the lake are very steep and indented here and there with deep bays. With their nets they secured many fine fishes, which, apart from their scientific interest, were welcomed as a pleasant change to their every day fare of mutton. There is an abundance of fish in the Marka Kul, but it is caught only by the Chinese Kirghiz and the Russian Altaian peasant, and that in a very primitive way. Generally they divert one or other of the small tributaries from its course, and the fish remaining in the dry bed are caught.

In spite of the dangers of the roads, the governor's wife had availed herself of every possible opportunity to photograph the most beautiful parts of the wild mountain scenery about them: this excellent horsewoman rode without fear or giddiness, never dismounting even at the most dangerous places.

The travellers resumed their journey on June 9, but the bad weather still followed them; they passed through large virgin forests, along the borders of abysses nearly 1,000 feet deep; at last they camped on a green meadow facing the Tau Teke Mountains (Steinbock Mountains), so called on account of the numbers of Steinbock found there. Early on June 11 a Steinbock hunt was attempted, thirty Kirghiz on horseback acting as drivers, but they did not get anything. On going on, in about an hour they reached the top of the pass, the Burchat; here they saw two cairns with poles before them, the Chinese frontier poles, and now they left the Celestial Empire and rode on into Siberian territory, slowly descending from the height of about 8,000 ft., where trees cease to grow; the descent soon became steeper and steeper, and at last so rapid that even Cossacks and Kirghiz were obliged to dismount. When they reached the plain they were surprised to see the vegetation, trees, bushes, and flowers, so much richer than at the Ala Tau. Also in this camp the governor was welcomed by a deputation of Kirghiz, and after a short rest they rode on to the Altaian Staniza, a military post.

NOTES

ON the 25th ult. there was unveiled at Copenhagen a bronze statue to H. C. Oersted, the discoverer of electro-magnetism, who died twenty-five years ago. The monument, erected on a terrace of the old fortification, consists of a hexagonal pedestal surmounted by a statue of Oersted, and on which are three female figures representing the Past, the Present, and the Future. Oersted has in his hand the wire of an electric battery which he holds over a magnetic needle. The ceremony of unveiling was attended by the King of Denmark, the King of Greece, the Crown Prince, most of the ministers and diplomatic officials, professors and students of the University, and many other official, learned, and scientific men. The address was spoken by Prof. Holten of the Polytechnic, who sketched

the private and scientific life of Oersted, and referred specially to the great discovery, first published in a small Latin pamphlet on July 21, 1821.

It is fitting that we should record here the death of a modest but devoted student of science, Dr. Thomas Strethill Wright, of Edinburgh, at the age of 58. Dr. Wright was a practising physician in Edinburgh, but found time to make many researches, and probably a few discoveries, in various departments of science, both in biology and physics. From a memoir in the *Scotsman*, we learn that after settling in Edinburgh in 1853, he undertook a series of observations on British zoophytes, more especially those inhabiting the Firth of Forth, and not only discovered many important facts in their structure, but added to the British fauna several new and interesting forms. His memoirs on these animals, eighteen in number, were published in the *Annals of Natural History*, the *Edinburgh Philosophical Journal*, and the *Proceedings of the Royal Physical Society* of Edinburgh, and speedily attracted the attention of scientific workers in the same field both at home and abroad. He entered into a correspondence with Agassiz, Van Beneden, Claparède, Kölliker, and Allman, who in their writings repeatedly refer to the value of his observations and discoveries. But he did not confine himself to natural history studies. He was constantly at work with physical apparatus, and invented various singular forms of telephones, &c. Some of the most curious of his experiments on what he called Electric Cohesion Figures are described by himself in *Chambers's Encyclopædia*. But it is much to be feared that a great many of his most ingenious inventions and discoveries are entirely lost, as his modesty prevented him from bringing them before the Royal Society of Edinburgh, though he was frequently urged to do so. One of these was a mode of studying the scintillation of stars by observing them through a telescope of low power supported on a vibrating stand. In 1865 Dr. Wright was made a member of the Zoologico-Botanical Society of Vienna. His ingenuity and readiness showed themselves in the mode in which he constructed out of simple materials a piece of apparatus, or devised a new method of observation, or executed the beautiful drawings with which his natural history papers are illustrated.

THE Queen has acted justly and generously in granting to the widow of the late George Smith a pension of 150*l*. It is stated that Mr. Hormuzd Rassam will succeed the late Mr. Smith in his work of exploration in the East. A firman for two years has been conceded to Mr. Rassam.

THE Cavendish College, Cambridge, will be opened to-day by the Chancellor of the University, the Duke of Devonshire. The building when complete will be capable of accommodating 300 students. The objects of the college are—1. To enable students somewhat younger than the usual age to go through the University course. 2. To give a special training in the art of teaching to those students who desire to become schoolmasters. 3. To attract poor students by reason of the economy in cost of living. The College charges will be 84*l*. per annum, which will include tuition, University dues, board and lodging—in fact, everything but books and clothes. The residence will be nearly forty weeks during the year.

THE death of M. Lick, the well-known founder of the Californian University and Observatory is reported by an American paper as having taken place on October 1. Some difficulties are anticipated in the adjustment of the donation which amounts to 5,000,000 of dollars.

FOR the intended Liebig memorial the sum of 140,000 marks has been already obtained. Both Munich and the little town of Giessen, where Liebig began his important researches, will have memorials.

THE following changes are proposed to be made in the constitution of the Council of the London Mathematical Society for the ensuing session :—Lord Rayleigh to be president in succession to Prof. H. J. S. Smith, who becomes a vice-president, Mr. C. W. Merrifield to be a vice-president in the room of Dr. Hirst, who becomes an ordinary member of the Council. The two gentlemen who have been selected to take the place of the outgoing members, Dr. Sylvester and Mr. H. M. Taylor, are Messrs. A. B. Kempe and J. J. Walker.

MRS. CRACE CALVERT has given 700*l.* for the foundation of a scholarship of 25*l.* per annum in chemistry, at Owens College, Manchester, in memory of her late husband, Dr. Crace Calvert, F.R.S.

THE vacant Natural Science Scholarship at Exeter College, Oxford, has been awarded to Mr. Joseph Baldwin Nias, commoner, of Exeter College. The scholarship is of the annual value of 80*l.* and tenable for four years during residence.

THE following College Lectures in the Natural Sciences will be given at Cambridge during Michaelmas Term, 1876 :—Gonville and Caius College—On the Physiology of Digestion and Absorption, by Dr. Bradbury ; On Volumetric Analysis, by Mr. Apjohn. Christ's College—On Vegetable Physiology and Histology, by Mr. Vines. St. John's College—On the Principles of Qualitative Analysis, by Mr. Main ; Instruction in Practical Chemistry will also be given ; On Petrology, by Mr. Bonney ; On Palæontology, by Mr. Bonney. Trinity College—On Electricity, by Mr. Trotter ; An Elementary Course of Practical Morphology, by Mr. Balfour ; Practical Physiology and Histology, by the Trinity Prælector in Physiology (Dr. Michael Foster), at the New Museums. Sidney Sussex College—Elementary Course of Vegetable Morphology, by Mr. Hicks. Downing College—On Chemistry, by Mr. Lewis ; On Comparative Anatomy and Physiology, by Mr. Saunders.

THE soundings taken in the British Channel at the expense of the Submarine Railway Company with the steamer *Ajax*, have been completed. Not less than 3,257 specimens have been collected, and will be classified for the purpose of compiling a chart of the sea-bottom. On the 18th inst. the shaft at Sangatte had reached the depth of 122 metres ; the boring, it is expected, will reach its termination, 130 metres, by the end of the month.

A SUM of 1,500,000*l.* has been allotted for the construction of the French Exhibition building of 1878. An artificial waterfall will be arranged at the Trocadero. Water will be pumped out of the Seine by colossal engines which will themselves be an attractive part of the exhibition. The waterfall will be illuminated every evening with coloured and electric lights.

AT the last meeting of the Dresden Society for Incineration, "Urne," it was announced that at the Brussels Exhibition of Hygienic and Life-saving Apparatus, the gold medal was awarded to the Siemens system. It was also announced that for the erection of an incinerating furnace in Saxe-Gotha, preparations for which have already been made, considerable contributions have been received. The agitation on behalf of incineration, it was stated, is making slow but steady progress in other countries.

A NOTIFICATION has been published by the French Government for the benefit of railway travellers, that the second and third-class carriages will be warmed next winter. The companies are at liberty to use any system they think best, but they must all adopt some system.

THE usual autumn *soirée* of the Manchester Field Naturalists' and Archaeologists' Society is this year to be held in the Aquarium of that city, and is to comprise an exhibition which

promises to be of a unique character. The special subject chosen is "The Mountain Limestone," and it is intended to illustrate every phase in the history of this formation, in an unusually comprehensive and attractive manner. Collectors willing to add to the completeness of the display, which it is intended to open to the general public for some days subsequent to the *soirée*, should communicate with Mr. Faraday, who is the Secretary to the Society, at the Manchester Aquarium.

THE popular impression that fair hair and blue eyes are characteristic features of German people has been confirmed by a recent census, although opinion among anthropologists has been divided on the subject. On a certain day every school in Prussia had to make a return of the black and blue and brown colour of the children's eyes. After a short time the results of this anthropological commission have been published, and they are, at all events, curious, though perhaps not of much scientific value. The number of persons examined in Prussia amounted to 4,127,766. Out of that number, 4,070,923 were under fourteen years of age. With regard to the colour of their eyes, 42·97 per cent. had blue, 24·31 per cent. brown eyes. With regard to the colour of the hair, 72 per cent. had blonde, 26 per cent. brown, and 1·21 per cent. black hair. With regard to the colour of the skin, Prussia has only 6·53 per cent. of brunette complexion. In Bavaria the brunette complexion claims 15 per cent., the black hair 5 per cent., the brown hair 41 per cent., the fair hair 54 per cent. ; and it is argued from this that the darker complexion in Germany came from the South. The Report contains a number of curious observations ; for instance, that nearly one-third of the Jewish school-children are fair, which would certainly not be the impression left upon a casual spectator by the ordinary run of Jewish population.

THE course of lectures at the École Libre of Anthropology, established by the Faculty of Medicine of Paris in one of their buildings, is to be commenced on November 15. The scheme we announced last year is an accomplished fact. The lectures will be open to the public free of charge. M. Paul Broca will deliver lectures on anatomic anthropology ; M. Paul Topinard, in biological anthropology, will lecture on the history of anthropology, the general, physical, and physiological characteristics of man, and on anthropometry ; M. Eugene Dally, in ethnology, will lecture on the origin and filiation of human races ; M. Gabriel de Mortillet, Sub-Director of St. Germain Museum, on prehistoric anthropology ; and M. Hovelacque on linguistic anthropology. The lectures will be supplemented by demonstrations in the museums and excursions to prehistoric stations round Paris.

AT a public dinner given by the Anthropological Society of Paris, a proposal of a singular nature, signed by MM. Hovelacque, Dally, Mortillet, Broca, Topinard, and others, was circulated for additional signatures. Each of these gentlemen promises to write a will directing that his brain be sent to the Anthropological Society for inspection and dissection. It is thought that by procuring the thinking organ of persons whose habits and works are perfectly known, some light might be thrown on the laws of physico-mental organisation. The scheme having been published in several Parisian papers, has provoked a furious attack from the *Univers*.

WE have received two valuable *brochures* by P. Kropotkin on the Orography of Eastern Siberia, both being reprints from vol. v. of the "Mem. Russ. Geog. Soc." The first, "General Sketch of the Orography of Eastern Siberia," shows the main conclusions arrived at by the author after many years' study of the orography of Eastern Siberia and of the adjacent parts of Mongolia and Manchouria. He points out that a large tableland runs from the table-lands of Central Asia to Behring's Straits in the shape of an elongated triangle, forming the back bone of this part of the continent, and consisting of two terraces, a higher

and a lower, both fringed with border-ridges. Two hilly tracts accompany the table-land on both sides and are composed of many short ridges running parallel to its edges, south-west to north-east; two broad belts of high plains spread out from the foot of the hilly tracts; two belts of lowlands reach respectively the Polar Sea and the Pacific; and, finally, various ridges run in the same north-eastern direction, diversifying the surfaces of the table-lands, of the plains, and especially of the south-eastern lowlands, which are also fringed by a belt of the Pacific coast ridges. These conclusions are supported by many sections, and the broad features of the land are shown on a map representing the different orographical characteristics by special colours. Some hints are also given as to the geological significance of this structure and as to its climatic and biological importance. The rough climate of the upper terrace of the table-land makes agriculture impossible on its surface, which is covered with larch forests and with marshy meadows; the agricultural settlements are, therefore, concentrated, partly on the lower terrace, but especially on the high plains and in broad ramifying valleys which cut deeply into the table-land and radiate to the east and to the south of the Baikal lake. The well-known sharp limits between the different floras, Manchurian, Daourian, and Saian-Altaian, and partly also the limits between the respective faunas, are determined by the extension of different terraces of table-lands and plains, various orographical characteristics corresponding also to special geological districts. The second paper, "Materials for the Orography of Eastern Siberia," is a chapter from a detailed orographical description of Eastern Siberia, undertaken but not finished by the author. It deals mostly with the little-known hilly tracts of the southern parts of the Jenissei province, and is accompanied by a contour-map of the country. Both papers are in Russian.

THE October number of Petermann's *Mittheilungen* contains a map of the Island of Hawaii and its famous volcano, with some data on the subject by Franz Bingham. Another map shows the recent discoveries in Africa of Stanley, Gessi, and Young.

DR. ERWIN VON BARY set out on his scientific expedition from Tripoli in the middle of August, and will by this time have reached Ghât. Dr. von Bary, in the autumn of 1875, made, at his own expense, a preliminary journey in the provinces of Tarhona and Gharian, and obtained some useful practical experience. The chief object of his undertaking is the solution of the important problem of the age and nature of the Sahara; the traveller will also give his attention to the flora of the Hogar Mountain. The Berlin Geographical Society contributes to Dr. von Bary's expenses.

NEWS has reached Stockholm of Dr. Théel's expedition, which had arrived at Dudinskoj on September 11, too late to return to Sweden in the *Ymer* with Prof. Nordenskjöld.

THE well-known African explorer, Gerhard Rohlfs, gave a lecture at Augsburg on the 17th inst., on his journey to Morocco, and his four years' stay in that little-known country. Furnished in Tangiers with recommendations by the English resident, he journeyed under many difficulties and dangers into the interior, as far as the holy city Uesan, and the capital Fez, in which he made a long stay, for without much formality he was appointed general physician to the whole of the Morocco army. In this position, and as physician-in-ordinary to the Emperor himself, and supported by the friendship of the chief Cherif of Uesan, he made investigations in the land and the people, thus opening to the civilised world a comparatively new part of the earth. Rohlfs sketched the land from the coast of the Mediterranean, and the exuberant flora of the coast-lands of the latter sea. He described it as an uninterrupted garden studded with towns and the

camp of the Arabs and Berbers, to the wooded snow-mountain of the Atlas; depicted the manners and customs of the people in Morocco, and on the Oases of the Sahara, and in the holy city, Uesan, whose inhabitants claim to be direct descendants of Mohammed. Finally he described his thirty days' journey to Tunis, through the endless desert, broken only by the broad valley of dried up rivers.

THE opening meeting of the French Geographical Society for the session 1876-1877, was held at Paris on October 18, under the presidency of M. Malte-Brun.¹ Admiral Laroncière le Noury delivered an address on the International African Congress at Brussels. Letters were received from a commission who are attempting to establish a central observatory on Mont Pio IX, in the Apennines. They propose to render that establishment the centre of European meteorology, but the scheme is not likely to come to much. They propose to build a metallic chapel and construct a captive balloon for conveying passengers from the foot of the rock to the top. M. Malte-Brun informed the Society of the creation in Brussels of a Belgian Geographical Society. The success of the recent scientific meetings held in that capital is regarded as a sure sign of the speedy success of the new institution.

A REPORT, dated New York, October 4, to the Secretary of the Liverpool Underwriters' Association, states that all the steamers arriving that week report large quantities of ice between lat. 45 and 46°30' N., and long. 49 and 50°30' W. One steamer passed two, one very large, about 200 feet high, "apparently aground;" another steamer passed forty-eight icebergs, and a third passed sixty-eight. It is certainly unusual to see so much ice at this time of the year so far south. We do not know whether the disaster to the Behring Sea whaling fleet can have any connection with this southward drifting of icebergs. Twelve out of fourteen vessels have been destroyed and many men. The cause of the disaster is not stated.

IT will be pleasing to ornithologists to know that there is every probability of the speedy appearance of the long-expected work by Mr. Gätke on the ornithology of Heligoland. The MS. for the German edition is already far advanced, and simultaneously an English one will be produced under the editorship of Mr. Henry Seebohm. It is probable that no more fit person could have been found for the task than the last-named gentleman, who has devoted himself to the study of European ornithology for many years past, and whose spirited energy in the expedition of last year to the Great Petchora, along with Mr. Harvie Brown, has rendered him famous among his brother naturalists. The practical experience gained by him during his journeys in Norway and in various parts of Southern Europe, will doubtless stand him in good stead in the by no means easy task which he has set before himself. At present he is staying in Heligoland, whither he was accompanied on a collecting trip by Mr. Bowdler Sharpe and Mr. Francis Nicholson, of Manchester. We learn from the latter gentlemen, who have returned to England, that in addition to the great interest attaching to the renowned Gätke collection, the short expedition proved a great success ornithologically, over eighty species of birds having been obtained or observed, among them being the rare *Phylloscopus superciliosus*, which was shot by Mr. Seebohm.

IN a letter dated "Labuan, August 17," Governor Usshe says that he has had great difficulty in getting specimens of the beautiful new pheasant recently described by Mr. Sharpe as *Lobiophasis bulweri*. He has twice sent over from Labuan to the mainland of Borneo the trained collector who obtained the original specimen, but hitherto without success. As, however, the birds are plentiful about thirty-five miles inland, he hopes to be able to get some examples very shortly. Bulwer's pheasant seems, in the north-western portion of Borneo, to be confined to

the Lawas River, where they are not uncommon, but on the Trusan and Brunei Rivers, which lie close to, the species is quite unknown to the natives, even by name.

THE Liverpool Geological Society held its first annual meeting of the session on the 10th instant, when the retiring president, Mr. T. Mellard Reade, C.E., F.G.S., delivered his annual address. The subject was an interesting one, being a calculation of the amount of solid matter removed annually from the surface of England and Wales in solution, in rain, or rather river water. The result of the calculations, which were of an elaborate nature, founded upon the analysis of water given by the Rivers' Pollution Commission in their Sixth Report, and the rainfall chart prepared by Mr. Symons, showed that it would take 13,000 years to remove, in this manner, one foot in depth of solid matter over the entire surface of England and Wales. This calculation was compared with others prepared by Mr. Reade, of the soluble denudation of the great river basins of Europe, viz., the Danube, the Rhine, and the Rhône. As throwing light upon the age of sedimentary deposits, the calculations taken, together with the amount of matter annually brought down in river water in suspension in the form of mud, are extremely interesting, and Mr. Reade deduced from them that the minimum amount of time which must have elapsed since the first sedimentary rocks we know of were laid down is, in round numbers, 500 millions of years, thus supporting the views of Lyell, Hutton, and other great geologists, as to the immense age of the world.

WE have on our table the following books:—"The River Clyde," by James Deas (J. Maclehose). Piddington's "Sailor's Horn-Book," 6th edition (Fredk. Norgate). "Spiritualism," Prize Essays. "Chemia Coartata; or, the Key to Modern Chemistry," Dr. A. H. Kollmyer (Churchill). Heer's "Primaevial World of Switzerland," edited by James Heywood, 2 vols. (Longmans). Oscar Peschel's "Races of Man" (H. S. King and Co.). "Text-book of Veterinary Obstetrics," by George Fleming, Parts I. and II. (Baillière, Tindall, and Cox). "A Study of the Rhætic Strata of the Val de Ledro in the Southern Tyrol," by T. Nelson Dale. Three more volumes of Stanford's "British Manufacturing Industries."

FROM the 18th inst. numerous spots have been observed on the sun, and a large number of protuberances detected round the disc by means of the spectroscope. The observations have been made at Brussels by Monkhoven, and reported daily in the *Indépendance Belge*.

A NEW and enlarged edition of Hayden's "Dictionary of Dates" is in the press, bringing the book down to this autumn. It is being thoroughly revised and corrected under the hands of Mr. Vincent, of the Royal Institution.

MR. MURRAY will publish during this autumn, "A Life of Thomas Edward, A.L.S., a well-known Scotch Naturalist," by Mr. S. Smiles, author of "Self-Help." The book will contain a portrait etched by Rajon; "The Effects of Cross and Self-Fertilisation in the Vegetable Kingdom," by Charles Darwin, F.R.S., and a new edition of "Kirke's Handbook of Physiology," by Mr. W. M. Baker. In this book many chapters have been rewritten, and about 160 new illustrations added.

WE are glad to find that a second edition of Mr. James Geikie's work, "The Great Ice-Age," has been called for. A considerable number of alterations have been made, and some parts have been almost re-written. Daldy, Isbister and Co. are the publishers.

THE additions to the Zoological Society's Gardens during the past week include a Rhesus Monkey (*Macacus erythraeus*) from India, presented by Mr. M. Almond; a Grivet Monkey (*Cercopithecus griseo-viridis*) from North-east Africa, presented by Mr. T. T. Sich; three Palm Squirrels (*Sciurus palmarum*) from India, presented by Mr. Henry Grey; a Collared Peccary (*Dicotyles*

tajacu) from Venezuela, presented by Mr. C. J. Sims; a Greater-spotted Woodpecker (*Picus major*) European, presented by Mr. Henry Laver; a Magpie Tanager (*Cissopis leveriana*) from Brazil, purchased.

SCIENTIFIC SERIALS

Bulletin de l'Académie Impériale des Sciences de St. Pétersbourg, t. xx. Nos. 3 and 4.—From these parts we note the following papers:—On an artificial way of producing snow crystals, by J. Dogiel.—On the appearance of Encke's comet in 1875, with remarks on the existence of a resisting medium in the celestial space, by E. von Asten.—On a remarkable motion observed in a very sensitive level, by H. Romberg.—On the property of the sphagnum of marshes, to absorb liquid water and water vapour from the atmosphere, by N. Geleznof.—On the determination of the brightness of fixed stars by means of Zoellner's photometer and gradual elevation, by Ed. Lindemann.—On pentamethyl-ethol and its derivatives, by A. Boutlerow.—Diagnose of new plants of Japan and Mandshuria, by C. J. Maximowicz (tenth part; this treatise is in Latin).—On the mean curvature of planes, by Ferd. Minding.—Some observations on reflex movements, by J. Setchenow.—On three new pinacolines, by A. Wischnegradsky.—On some derivatives from lepidene, by N. Zinin.—On the calculation of the elliptical orbit by means of the two radii vectores r and r' , of the angle $2f$ they enclose, and of the time t between the two observations of the planet, by M. Kowalski.—T. xxi. Nos. 1 to 4.—From these parts we note the following papers:—Researches on the rabbit (*Lepus cuniculus*), from a zoo-geographical and palæontological point of view, by J. F. Brandt.—Some observations on the sexual glands of insects, by Dr. A. Brandt.—On dimethylparabanic acid, and on succidic ethers, by N. Mentschutkin.—On the orbit of the double star $\Sigma 1728 = 42$ Comæ Ber., by O. Struve.—On the observations of the planets at St. Petersburg, by A. Sawitsch.—Results of measurements made on dolomite, barytes, titan-iron, and zinc blende crystals, by N. Kokscharow.—Researches on blood, by H. Struve.—On some derivatives from lepidene, by N. Zinin.—Analysis of the coal newly discovered at Gelazk, in Imeretia, by Heinr. Struve.—On the remains of extinct rhinoceros found in Russia, by J. F. Brandt.—On a new siphon barometer, by H. Wild.—Some observations made based on the theory of primordial cellular leaves in the vegetable kingdom, by A. Famintzin.—On an anemometer provided with a simple apparatus to measure the force of the wind, by H. Wild.—On the transformation of some hydrocarbons in the ethylene series and the corresponding alcohols, by M. Boutlerow.—On the milky sap of *Cyananthum acutum*, L., by the same.—On diphenylcarbinol and some of its derivatives, by A. Zagumenny.—Osmotic phenomena produced in vegetable and animal cells by the action of ether, by H. Struve.—On the curves of the smallest perimeter on surfaces of revolution, by Prof. Minding.—Speech delivered at a public meeting of the Academy on December 29 last, in praise of the late Prof. Jacobi, by H. Wild.—On the question whether the Karian sea can be looked upon as an ice-cellar, by K. E. van Baer.—Report on the memoir by M. Wex on the diminution of waters in sources and rivers, by MM. Helmersen and Wild.—Experimental Researches on some functional properties of the smaller brain, by Ph. Owsianikow and W. Weliky.—Photometric researches concerning the diffused light of the sky, by H. Wild.—On the double star $\Sigma 2120 =$ Hercules 210, by O. Struve.—On the action of zincethyl on acetaldehyde, by G. Wagner.—Additional remarks by K. E. van Baer, on the memoir on the law of the formation of river beds.—T. xxi, No. 5 contains only a few papers of interest. We note the following:—On the mineral substances containing paraffin in the peninsula of Apcheron, by H. Abich.—On the properties of Leuchtenbergite under the microscope, both in its pure and in its metamorphosed state, by Duke Nikolaus, of Leuchtenberg.—Microscopical properties of the Indian green aventurine, by the same.—On the chemical composition of diaturnates, by N. Mentschutkin.—On the morphology of *Ulothricheæ* (a genus of *Algae*), by L. Cienkowski.

Revue des Sciences Naturelles, tome v. No. 1.—In this number M. Collot carries out in the plant-kingdom a line of inquiry that has been prosecuted in the animal. He shows that many plants before reaching their final form pass through forms very different from that; these young forms lack special character and show the average and most common conformation of the group to which the plant belongs (Australian Acacias, &c.), or serve to